Fairview Microwave
an INFINITE brand

FMVC31023
DATA SHEET

Voltage Controlled Oscillator, 1700 MHz to 1850 MHz, Pout 0 dBm, Phase Noise of -96 dBc/Hz, 0.5V to 4.5V Tuning Range, SMA

The FMVC31023 is highly reliable low noise Voltage Controlled Oscillator (VCO) that operates across 1700 MHz to 1850 MHz with a tuning voltage range from 0.5V to 4.5V. Impressive typical performance includes generated output power of 0 dBm, 2nd Harmonic Suppression of -15 dBc, phase noise of -96 dBc/Hz @ 10 KHz offset, and tuning sensitivity of 70 MHz/V. The design incorporates internal voltage regulation and reverse DC protection, wtih a bias voltage range from +9V to +15V. The rugged and compact coaxial package assembly supports SMA female connectors, RFI and ground pins. The VCO has an operational temperature range of -40°C to +85°C and is designed to meet a variety of MIL-STD-202 test conditions including shock, vibration, altitude, and humidity.

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	1.7		1.85	GHz
Tuning Voltage	0.5		4.5	Vdc
Supply Voltage (DC)	9	12	15	Vdc
Supply Current (DC)		20		mA
Phase Noise @10kHz Offset		-96		dBc/Hz
Output Power	-3	+0	+3	dBm
Tuning Sensitivity (Kvco)		70		MHz/V
Pulling (pk-pk)		13		MHz
Tuning Port Capacitance		33		pF
Load Impedance		50		Ohms
2nd Harmonics		-15		dBc

Mechanical Specifications

Size

Length	1.25 in [31.75 mm]
Width	1.25 in [31.75 mm]
Height	0.563 in [14.3 mm]
Weight	0.4 lbs [181.44 g]
Design	Commercial
Connector Option	Standard
Output Connector	SMA Female

Environmental Specifications

Temperature

Operating Range	-40 to +85 deg C
Storage Range	-55 to +100 deg C
Humidity	MIL-STD-202, Method 103B, Condition B
Shock	MIL-STD-202F, Method 213B, Condition B
Vibration	MIL-STD-202F, Method 204D, Condition B
Altitude	MIL-STD-202F, Method 105C, Condition B

Features:

- Voltage Controlled Oscillator
- 1700 MHz to 1850 MHz
- 0.5V to 4.5V Tuning Voltage
- Pout: 0 dBm
- Phase Noise: -96 dBc/Hz
- 2nd Harmonic Suppression: -15 dBc typ
- Tuning Sensitivity: 70 MHz/V
- +12 Volt DC Bias
- SMA Female Connectors
- -40°C to +85°C Operating Temperature
- 50 Ohm Design
- Internal Voltage Regulation
- Reverse DC Protection
- Rugged Package Design meets Mil-STD-202 Test Conditions

Applications:

- Phase Locked Loop
- Function Generators
- Frequency Synthesizers
- Receivers
- Electronic Jamming Equipment
- Local Oscillators
- Wireless Communications
- SATCOM
- Optical Communications
- Military Electronic Systems

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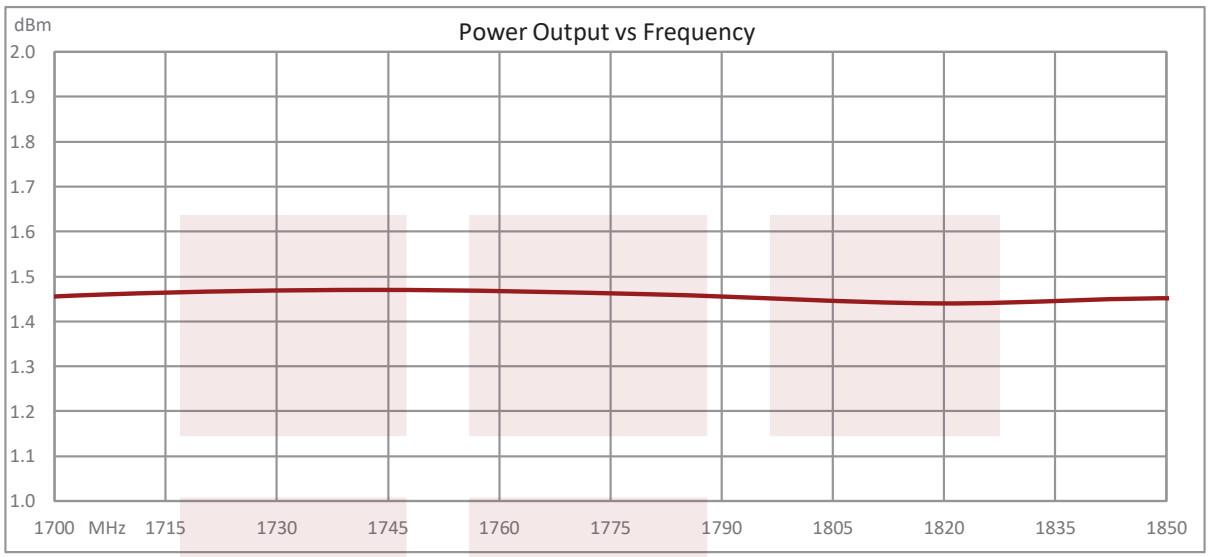
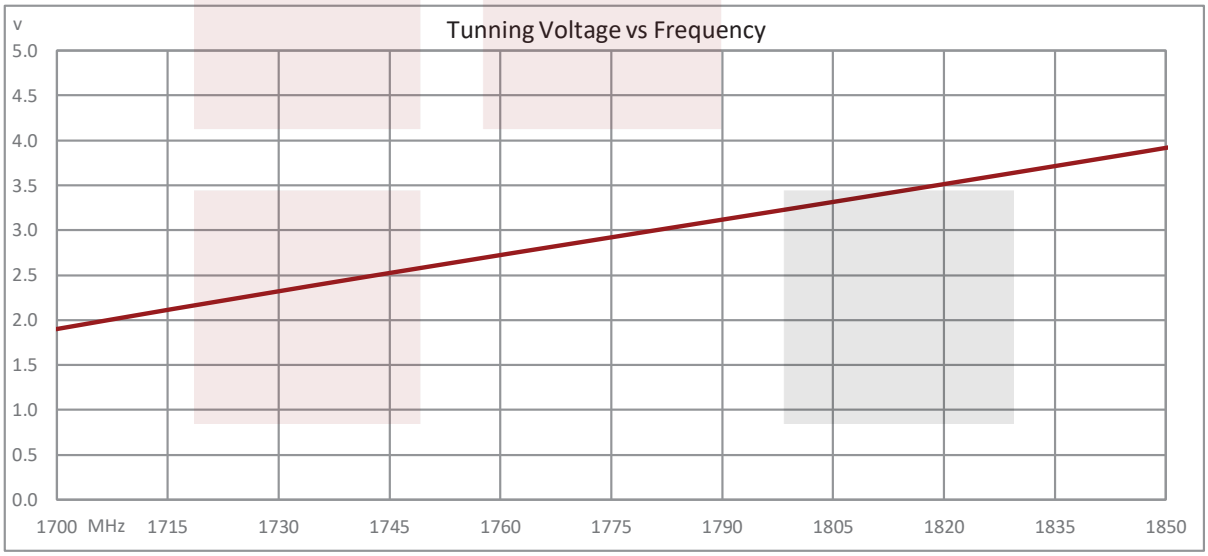
Compliance Certifications (see product page for current document)

Plotted and Other Data

Typical Performance Data





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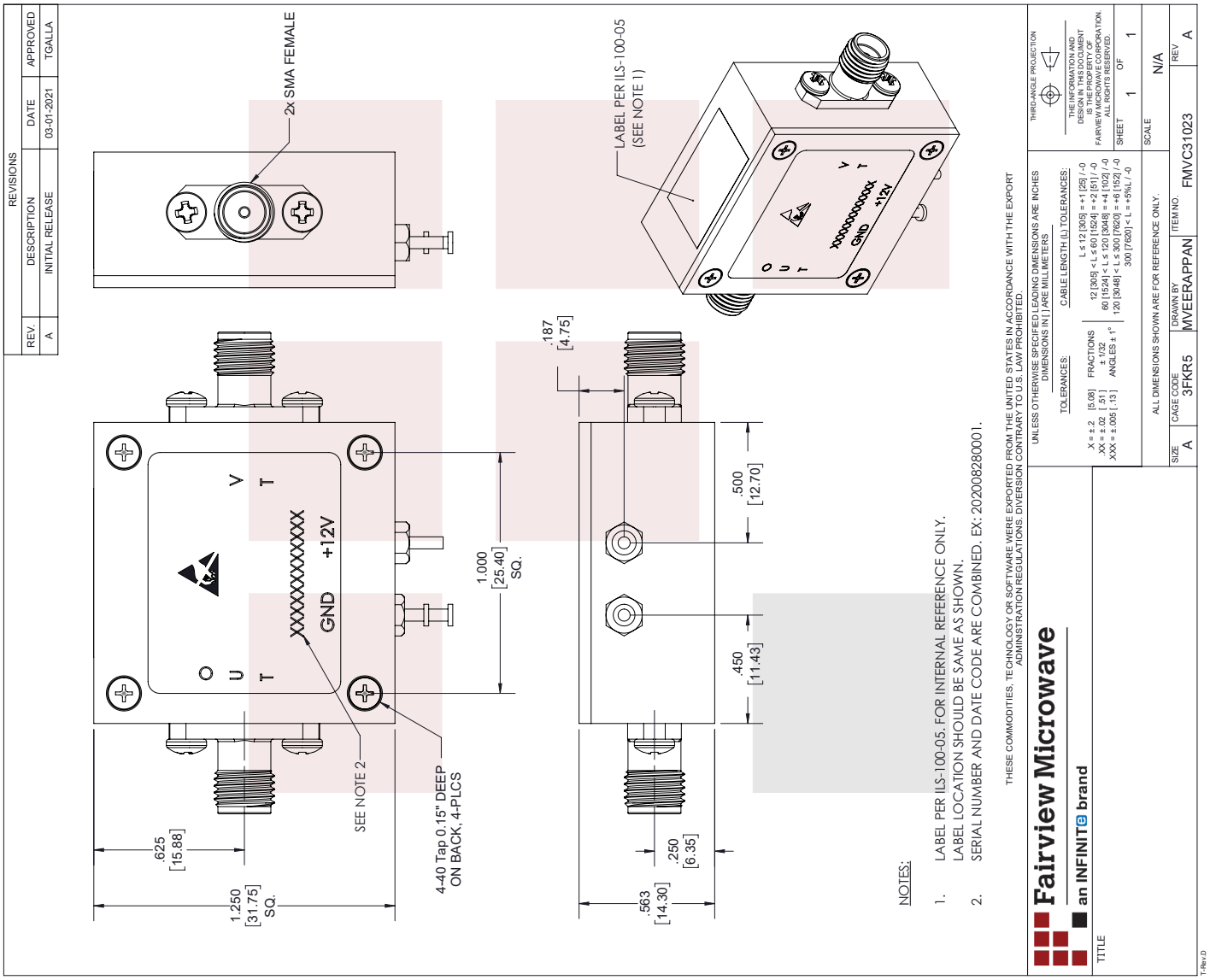
Voltage Controlled Oscillator, 1700 MHz to 1850 MHz, Pout 0 dBm, Phase Noise of -96 dBc/Hz, 0.5V to 4.5V Tuning Range, SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: Voltage Controlled Oscillator, 1700 MHz to 1850 MHz, Pout 0 dBm, Phase Noise of -96 dBc/Hz, 0.5V to 4.5V Tuning Range, SMA FMVC31023

URL: https://www.fairviewmicrowave.com/vco-voltage-controlled-oscillator-1.85-ghz-fmvc31023-p.aspx



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